*Please provide the following information, and submit to the NOAA DM Plan Repository.*

**Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

## 1. General Description of Data to be Managed

### 1.1. Name of the Data, data collection Project, or data-producing Program:

Effects of Ocean Acidification on Phytoplankton Physiology and Nutrition for Fishery-based Food Webs

### 1.2. Summary description of the data:

Rising atmospheric concentrations of CO2 are predicted to decrease the pH of high-latitude oceans by 0.3–0.5 units by 2100. Because of their limited capacity for ion exchange, embryos and larvae of marine fishes are predicted to be more sensitive to elevated CO2 than juveniles and adults. Eggs and larvae of walleye pollock (Theragra chalcogramma) were incubated across a broad range of CO2 levels (280–2100 matm) to evaluate sensitivity in this critical resource species. Slightly elevated CO2 levels ( 450 matm) resulted in earlier hatching times, but differences among egg batches were greater than those observed across CO2 treatments. Egg batches differed significantly in size-at-hatch metrics, but we observed no consistent effect of CO2 level. In three independent experiments, walleye pollock were reared at ambient and elevated CO2 levels through the early larval stage (to 30 days post-hatch). Across trials, there were only minor effects of CO2 level on size and growth rate, but fish in the ambient treatments tended to be slightly smaller than fish reared at elevated CO2 levels. These results suggest that growth potential of early life stages of walleye pollock is resilient with respect to the direct physiological effects of ocean acidification.

### 1.3. Is this a one-time data collection, or an ongoing series of measurements?

Ongoing series of measurements

### 1.4. Actual or planned temporal coverage of the data:

2012-10 to Present

### 1.5. Actual or planned geographic coverage of the data:

laboratory experiments

### 1.6. Type(s) of data:

*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*
Document (digital)

**1.7. Data collection method(s):**

*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*

Instrument: Quattro, Dissolved Inorganic Carbon analyzer, spectrometer, GC, elemental analyzer, Iatrascan

Platform: Not applicable

Physical Collection / Fishing Gear: Water collected from boat at 1 m depth with a pump

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:**

**1.8.1. If data are from another observing system, please specify:**

## 2. Point of Contact for this Data Management Plan (author or maintainer)

**2.1. Name:**

Shannon L Meseck

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:**

Northeast Fisheries Science Center

**2.4. E-mail address:**

shannon.meseck@noaa.gov

**2.5. Phone number:**

203-882-6531

## 3. Responsible Party for Data Management

*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

**3.1. Name:**

Shannon L Meseck

**3.2. Title:**

Data Steward

## 4. Resources

*Programs must identify resources within their own budget for managing the data they produce.*

**4.1. Have resources for management of these data been identified?**

Yes

**4.2. Approximate percentage of the budget for these data devoted to data management ( specify percentage or "unknown"):**

Unknown

**5. Data Lineage and Quality**

*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

**5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible**

*(describe or provide URL of description):*

Lineage Statement:
Laboratory experiments

**5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**

**5.2. Quality control procedures employed (describe or provide URL of description):**

Certified Reference Materials ran with each sample

**6. Data Documentation**

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

**6.1. Does metadata comply with EDMC Data Documentation directive?**

Yes

**6.1.1. If metadata are non-existent or non-compliant, please explain:**

**6.2. Name of organization or facility providing metadata hosting:**

NMFS Office of Science and Technology

**6.2.1. If service is needed for metadata hosting, please indicate:**

**6.3. URL of metadata folder or data catalog, if known:**

https://inport.nmfs.noaa.gov/inport/item/26976

**6.4. Process for producing and maintaining metadata**

*(describe or provide URL of description):*

Metadata produced and maintained in accordance with the NMFS Data Documentation Procedural Directive: https://inport.nmfs.noaa.gov/inport/downloads/data-documentation-procedural-directive.pdf

**7. Data Access**

*NAO 212-15 states that access to environmental data may only be restricted when distribution is*

*explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.*

**7.1. Do these data comply with the Data Access directive?**

Yes

**7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?**

**7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:**

**7.2. Name of organization of facility providing data access:**

Northeast Fisheries Science Center

**7.2.1. If data hosting service is needed, please indicate:**

No

**7.2.2. URL of data access service, if known:**

http://www.nodc.noaa.gov/cgi-bin/OAS/prd/accession/details/121255

**7.3. Data access methods or services offered:**

Website search

**7.4. Approximate delay between data collection and dissemination:**

2 years

**7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:**

Not Applicable

## 8. Data Preservation and Protection

*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

**8.1. Actual or planned long-term data archive location:**

*(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*

Other

**8.1.1. If World Data Center or Other, specify:**

NODC Accession 0121255). National Oceanographic Data Center, NOAA. Dataset. doi: 10.7289/V51V5BX5 [access date]

**8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:**

**8.2. Data storage facility prior to being sent to an archive facility (if any):**
NEFSC Milford Lab - Milford, CT

**8.3. Approximate delay between data collection and submission to an archive facility:**
2 years

**8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**
*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*
online server nightly at NODC and back up on our computer servers

**9. Additional Line Office or Staff Office Questions**
*Line and Staff Offices may extend this template by inserting additional questions in this section.*